Claims

1. A method for monitoring a technical device (1),
   which method is characterized by the following steps:
   a) a number of operational signals of the technical device
      (1) are detected while the technical device (1) is
      operating,
   b) a mean operational signal value (15) is formed using at
      least some of the operational signals from the number
      thereof,
   c) a normalized operational signal (17, 171) containing a
      deviation of a current value of the operational signal
      from the mean operational signal value (15) is formed for
      at least one operational signal, and
   d) the normalized operational signal (17, 171) is compared
      with a reference value range (35) of the relevant
      operational signal.

2. The method as claimed in claim 1,
   characterized in that
   the reference value range (25) is formed by means of a
   lowest (39) and a highest value (32) of the normalized
   operational signal (17, 171).

3. The method as claimed in claim 2,
   characterized in that
   the lowest (30) and/or highest value (32) of the normalized
   operational signal (17, 171) are determined from actual
   measured values of the relevant operational signal.

4. The method as claimed in claim 2,
   characterized in that
   the lowest (30) and/or highest value (32) of the normalized
   operational signal (17, 171) are determined using a

11

statistical distribution function.

5. The method as claimed in one of the claims 2 to 4,
characterized in that

5   the reference value range (35) is determined several times
while the technical device (1) is operating and the
normalized operational signal (17, 171) is compared with
the current reference value range (35) in each case.

10 6. The method as claimed in one of the claims 1 to 5,
characterized in that
the operational signal's current value is additionally
compared with a monitoring threshold specified in advance.

15 7. The method as claimed in one of the claims 1 to 6,
characterized in that
a corresponding mean operational signal value (15) is
formed for operational signals of each type.